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HOME ECONOMICS IN THE WOMAN'S COLLEGE[1]

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The hospitality and trustfulness of the South is emphasized in the invitation extended to me, a Southerner of less than a year's standing, with my harsh Pennsylvania-Illinois accent still unsoftened, to discuss one of the problems of the South. Of course I do not yet know anything worth while about any distinctively southern problem, but the problems of the woman's college have been a matter of interest to me ever since my four years at Vassar. And all of us are much alike. Such meetings as this emphasize the likenesses. The difference in our problems is just enough to be stimulating; without it we might get up an iron clad syllabus, meet once to ratify it, then company 'bout face, and go home to teach it forever after, or until grand headquarters sent out a new manual.

For years we have been looking toward standardization. Publishers beg us to get together. They say they cannot publish books on dietetics, because no two schools mean the same thing by the title, and that home management is even worse. Our special apostle of standardization is not here—I would not dream of attempting to take up her formidable cudgels—but please at this point insert a legal phrase to the effect that nothing herein stated is to be interpreted as decrying the need of standardization in our nomenclature and in our courses, because I am going to plead for variety in types of courses.

[1] Presented at the Twelfth Annual Meeting of the American Home Economics Association, Blue Ridge, N. C., June, 1919. This paper was one of a group discussing Home Economics Problems in the South, arranged for the program of the Southern Home Economics Association.

It may be said that there are three main types of courses in home economics. Here as in all classifications, there are infinite gradations between the types, which may be called the technical, the university, and the academic courses. I hope we shall always have these types; every one of them has at least the possibility of a brilliant future; but certainly the strictly academic course is the most backward. There are two reasons for this. First, proper soil has not been available. Most of the universities began their work in this subject with what may be called an academic course. Nobody was satisfied with it, and it presently developed into the more or less professional course it is now. This was natural, because the universities have many professional and semi-professional courses. The second reason why the strictly academic course in home economics failed to develop is that there has not been enough material from which to build it—there have not been enough structural minerals, or amino acids, not to mention vitamines. An academic course in a science still in embryo is of necessity thin, superficial, sciolistic; but such a course in a science enriched by enough information behind and under it may be in high degree valuable. The chemistry taught in medical schools used to be a very dilute solution, hated by the students and teachers alike, and this was not only because it was taught with no laboratory work to vitalize the facts, but also because there were not enough facts available. Physiological chemistry was in embryo.

Now I hold—and I am sure that, whoever else may disagree with me, no one in this Association will do so—I hold that home economics has reached a state of development which makes it possible to build from it a strictly academic course; that there is a place for it in the educational system of this country; and that it will not only enrich the general curriculum of the academic woman's college and the general equipment of the students, but also be itself enriched by its use in this way.

Some paragraphs back I said that I wanted to plead for variety. When our students leave us on graduation, they almost always pay us the huge compliment of reversing the cylinder (or whatever it is you do to change a dictagraph to a dictaphone). They have enjoyed their dietetics so much that they teach dietetics to high school students, or to even younger victims. And we do just about the same thing. We go to a university for special study and carry the courses back to our own institutions. Many of us have heard the author of one of the best of dietet-

ics courses bemoan the fact that this continent is dotted with places in each of which a replica of her course is given without any of the modifications necessary to fit it to its new environment.

We spend five years or so helping with a splendid solid symmetrical course; we go out to spread the good work; and what a temptation it is to try to transplant the whole thing bodily. How irritating it is to find that it will not fit the new location! How inferior the new soil seems, lacking in depth and richness, lacking, to drop the metaphor, in appreciation of a really fine thing—not ourselves, of course, there is nothing personal in our feeling—but of our subject. An Englishwoman I know, on starting for this country, was told by her brother, "Now don't expect that whole continent to adapt itself to you, for it won't; if any adapting is to take place, you are the smaller body, and you will have to do it."

The old conservative academic women's colleges have a real function in our national education. That home economics belongs in them is almost too obvious to need saying here, but let us think out the reasons. Most of my pleas you do not need at all, but some of your colleagues in pure science and the classics in the colleges and universities do need them. In its present stage of development the study of home economics may involve severe and valuable training. Time was when educators looked askance at all science as too useful to be cultural, and as out of place in any but technical schools. When so-called "pure" science had been received, suspicion was transferred to "applied" science. We have not yet passed this stage, but scientists are coming more and more to see that the application of science requires the most exact knowledge, and may involve the highest and deepest thinking. In the beginnings of any applied science there is danger of making the teaching of it superficial or simply practical and vocational. There is no excuse for that in home economics. The subject is not in an embryonic state. In the twenty years since the universities began to introduce it, it has developed sufficiently to offer a broad field for choice. It can contribute materially to the curricula of such varied types of educational institutions as trade schools, medical colleges, graduate schools of universities, and academic colleges. The senior student who came to the Department for help in planning to take charge of her mother's house, and after enthusiastically noting down fifteen minutes' worth of concentrated essence, complacently remarked, "I always say a college girl doesn't need to take courses in home economics; she can work it up by herself,"

was away behind the times. She can "work it up," or history, or mathematics, or English, or anything else, if she is an exceptional person; but home economics is not in a class by itself in this respect.

One of the functions of education is to give the students the information and training, mental and cultural, that shall make them more intelligent and more efficient in their citizenship, and in their personal lives. More and more we are emphasizing citizenship in our teaching. The nation needs to have women take an active responsible part in its affairs because women and men look at many matters from a somewhat different angle. Women bring to problems of housing, for example, of child welfare and education, and of food, a different viewpoint. The practical result one would expect from this is not, so far, very apparent. According to our critics—and if we can only avoid getting too impatient with their inaccuracies to listen to them we can often learn something from our critics—the votes of women run so nearly parallel to those of men that nothing is gained by their suffrage. So far as this is true, it is so because, though women have a distinctive point of view, they do not know how to use it. They do not know how to apply to these problems their constantly increasing knowledge of physics, chemistry, biology, physiology, bacteriology, mathematics, economics, and sociology. Home economics gathers together facts from all these sciences, correlates, focuses, and applies them.

Then as to the influence of college education on the individual lives of women. We are told by critics that a college education increases women's interest and matures their ideas in every line except home activities and religion, that as a consequence, college women, at the end of their formal education, have such immature and inadequate ideas on these two subjects that they think neither worthy of further endeavor. They do not realize that the greater interest they find in other lines of thought is due, not to an innate superiority of the field, not altogether to individual differences in interest, but chiefly to the fact that for four years they have sedulously cultivated their ideas along many other lines, while their thinking about spiritual matters and home activities has been left in an embryonic state. They have not really thought, studied, grown up, along these lines at all. They can, however, develop their way of thinking on housing, food, and clothing problems in a scientific, cultural, and academic way.

If home economics is to be true to its whole purpose, the development of the best all-round life, we cannot utterly forget the spiritual side;

and where it is not possible to make one's own life philosophy clear, one can at least evidence the same respect for sincere and serious thinking along this line that one would show for sincere and serious thinking along any scientific line.

In deciding to introduce home economics as an integral part of her curriculum, Goucher College among the old academic colleges has shown herself a pioneer, a pathfinder. If the present direction continues, the Department of Home Economics at Goucher will base its course on the physical and biological sciences and on economics, and will apply the facts and the methods of those sciences to the problems of its special field, problems of housing, of clothing, and of nutrition. It will give just enough practical work to vitalize and drive home the application, and to serve as a basis for individual study of such problems, no more than this; not enough to give technical skill, important as this is. Such technical training is not a part of an academic course which in this, as in other lines, should lay a broad, firm foundation for later specialization. Students who desire technical skill will be given opportunity to get it outside of the class room. On the other hand, it is as impossible to teach home economics properly without laboratory work as to teach chemistry or bacteriology in that way. In all these lines it has been tried. The colleges should not train technical chemists, dietitians, cooks, dressmakers, nor decorators. On the other hand, they are quite as far wrong if they teach theory without practice, if they are afraid of the factors that vitalize and at the same time secure the theory,—if they entertain the fear expressed by one visitor, "What is that long table in your first floor laboratory? You don't have *cooking*, do you?" The courses in the woman's college will differ from that in the university as the latter differs from the courses in the technical school in that a smaller proportion of time will be given to the getting of technique, and a greater to work in related and marginal subjects. It will aim first to enrich the course of the general student and only secondarily to serve those students who major in home economics. A survey course will be offered without prerequisites which will give the foundations of home economics through lectures, reference work, and discussions; emphasizing the fact that the object of all home economics is to further the welfare of the family, whether it attacks problems of international and municipal housekeeping, or those of the individual or of the family group. It will include a brief study of the family and its physical environment, budgets for the family and for the college girl, and the

principles underlying the proper selection and use of houses, clothing, and food. Without majoring in home economics, any girl who has the necessary prerequisite of a year of college chemistry may take the first year of food study; one who has the foundation in chemistry and economics may take the work in textiles and clothing. The courses on the house also may be isolated. This is true theoretically or actually, in many university courses, but the *chief aim* of the course in a woman's college should be the enrichment of the general curriculum, especially at first; home economics should not replace the major subjects now chosen, but should supplement them.

The problems of the home ought to be every woman's first interest, whether she attacks them in one individual home or as problems of municipal or of international housekeeping. Whether she is a homemaker, a scientist, a philosopher or a diplomat, these problems, in one phase or another, need, and will reward, her greatest powers of mind and spirit.

OUTLINE OF COURSES IN HOUSEHOLD ARTS, CHICAGO PUBLIC SCHOOLS

JENNY H. SNOW, *Supervisor*

COOKING

From the standpoint of the meal.

Grade 6

Laboratory Work	Related Work
Learning equipment and method of measuring.	Discussion of personal equipment.
Individual dishes that may be used for breakfast.	Discussion of breakfasts. What children eat for breakfast. What may be eaten for breakfast.
Beverages—Cocoa, malted milk, postum, tea, coffee.	Relative values. Which best for children.
Fruits—Fresh, dried.	Composition. Why cooked. Methods of cooking.

Cereals—Rice, wheat, oats, corn.	Economic and food value. Testing with iodine for starch. Difference between boiling and steaming.
Planning and serving breakfasts.	Simple meals, combining the dishes of preceding lessons. Work out cost of same. Setting table, cooking, serving as class work.
Individual dishes that may be used for lunch.	Discussion of luncheons.
White sauce on toast.	Thickening power of flour.
Vegetables—Baked, boiled, steamed, creamed.	Classification of vegetables. Study of composition and structure. Food value of vegetables. Reasons for cooking. Suitable seasons for each, relative cost, 8 or 10 vegetables to be used.
Cream soups.	Food value. Place in the diet.
Planning and serving lunch.	Selection to be made by girls from previous work. Buying supplies, cooking in large amounts. Setting table and serving simple meals to the class.
Milk—Cottage cheese, junket, butter.	Food values and digestibility of milk. Place in diet. Care by producer, retailer, and in home. Sterilizing and pasteurizing. Ways of using milk and cheese.
Luncheon dishes—Macaroni, spaghetti, rice and cheese.	Food value of dishes. Combination of starch and protein in cooking, principles involved.
Eggs—Various ways of cooking, combining with milk in baked custard.	Composition and food value. Test for fresh eggs. Commercial methods of keeping them. Thickening power of eggs. Cooking temperature.
Planning and serving simple luncheons.	Cost of luncheons.

Batters and Doughs—Popovers, muffins, drop biscuits, corn bread, ginger bread, griddle cakes, rolled biscuits, plain cake.	Flour, various kinds and relative values. Washing, stretching and baking gluten. Difference between batters and doughs.
Bread—Preparation lesson. Yeast experiments, making of bread.	Stages in baking, oven tests. Experiments to show growth and best temperature for yeast. Methods of making bread. Comparing home versus baker's bread as to cost and value.
Desserts—Corn starch pudding, gelatin.	Thickening power of corn starch. Comparison with flour. Substituting one for the other. Source, food value, uses of starch and gelatin.
Planning and serving luncheons.	Serving a luncheon to guests.

Grades 7 and 8

Preservation of food—Canning vegetables and fruits, making jelly, pickling sweet and sour.	Study of bacteria, yeast and moulds. Use of sugar in canning. Other methods of preserving. Comparative study of fresh and dried fruits and vegetables.
Vegetables—Fresh and dried, baked beans, escalloped, review of white sauce, buttered crumbs.	Review method of cooking and food value.
Salads and salad dressings.	Varieties, food values. Place in diet. Requisites for attractive and palatable salads.
Review Batters and Doughs, including cakes and cookies.	Study of baking powder and soda.
Syrups and icings.	Study of sugar, corn syrup. Food values. Place in diet.
Serving luncheons.	Study of Langworthy chart. Planning meals.
Individual dishes that may be used for dinner.	Buying and cooking in large quantities and serving. Discussion of dinner.

Meat, soup stock, various methods of cooking meats, use of left-overs.	Food values. Digestibility. Cost. Various cuts. Uses of each. Comparative food value and cost of tough and tender cuts.
Fish, fresh and salt. Use of left-overs, croquettes, balls, salads.	Digestibility and cost of fish vs. meat. Tests for fresh fish. Best varieties in this locality.
Bread, baking powder, yeast.	Each girl to have practice in making large loaf of bread.
Desserts, puddings, soft custards, floating island, tapioca and prune puddings, fruit rolls, bread and other puddings, pastry, tarts, pies.	Large corn starch pudding and baked custard to be made in review. Place of desserts in diet. Kind depending on rest of menu. Digestibility and food values of pastry.
Frozen mixtures, sherbet, ice cream.	Food value and place in diet. Principles and rules for freezing. Comparative cost and value of home vs. commercial ice cream.
Planning dinners, care of dining room.	
Serving dinners, cooking in large amounts.	Dinner served to guests.

SEWING

Grade 6

APPLIED PROCESSES

Basting, hemming, overhanding, overcasting, running, gathering, backstitching, combination stitch, chain stitch, feather stitch, machine practice for straight stitching, plain seam, French seam, putting on a band.

Stocking darning, mending, knitting or crocheting.

SUGGESTED PROJECTS

Towel, ovencloth, protection cloth, sewing apron without band, runner, holder, square or round.

Book cover, broom cover, bag (sewing, knitting, vegetable, laundry, slipper, etc.)

Machine Practice—Holders, wall pocket, silver case, scissor case, pencil case.
Half sleeves (elastic at top and bottom, band at bottom, plain hem).
Apron (cooking), cap (cooking).
Crochet—Scarf, turban, cap, hug-me-tight, mat, or edging.
Knit—Wash cloth, squares for afghan.
Gymnasium—Bloomers.

TOPICS FOR STUDY

Warp, woof, selvedge, weaving.
Art—Space relation in construction.
Study of line.
Simple pattern construction—Placing, cutting.

Grade 7

APPLIED PROCESSES

Blanket stitch, button-hole stitch, hemstitching, cross-stitch, cutting a bias-joining, sewing on lace, joining embroidery, facings (bias), flat fell seam, lapped seam, overhanded seam, plackets, hemmed, one-piece.
Sewing on buttons and fasteners.
Stocking darning, mending, patching, knitting or crocheting.

SUGGESTED PROJECTS

Night dress (kimono), kimono.
Cuffs—Collar.
Undergarments—Chemise, skirt, bloomers, corset cover, underwaist.
Middy, apron, simple dress skirt, fancy apron, serving apron.
Crochet—Slippers, cap, scarf.
Knitting—Scarf, bag, wristlets, runner, table cover, mats, pillow tops, bag.

TOPICS FOR STUDY

Study of suitable materials, shrinkage of material.
Art—Study of decoration, study of appropriate laces, width, texture, etc. Study of commercial patterns used.

Grade 8

APPLIED PROCESSES

Trimmings—Bias, piping, bands, collar, cuffs.
Mending—Knitting or crocheting.

SUGGESTED PROJECTS

Middy or smock, blouse, dress skirt, dress of simple construction, remodeled garments.
Undergarments—Princess slip, drawers or Knickerbockers.
Bags, table covers, rugs, mats, pillow tops (applied decoration or woven).
Select at least one project having a set-in sleeve.

TOPICS POR STUDY

Study of materials, care of clothing, simple removal of stains, simple tests for fiber.
Art—Horizontal and vertical lines or bands, commercial patterns, simple alterations.

HOUSEHOLD ARTS IN THE PUBLIC SCHOOLS, LEXINGTON, KENTUCKY

ANNE SIMRALL, *Supervisor*

The Lexington Schools are unusually fortunate in having a Superintendent[1] of the City Schools and a Board of Education whose interest, inspiration, and help have enlisted the coöperation of pupils, teachers, and parents, and made possible the rapid progress in Household Arts that we have been able to make.

So many of our children leave school at the end of the sixth grade that we have tried to help as large a group as possible, and in order to do this we have offered the work each year in a grade lower than it was given in the preceding year.

We have $1\frac{1}{2}$ hour periods once a week in the third, fourth, fifth, and sixth grades; 2 hours once a week in the seventh, eighth, and ninth grades (Junior High School); and 100 minutes a day in the eleventh grade (Senior High School).

[1] Mr. M. A. Cassidy.

Two years ago we introduced machine work in the sixth grade. This year in the third grade we have accomplished the same amount of practical work, in our short school term, that the Freshman High School girls accomplished four years ago, and, in two or three lessons, the same amount of work that was accomplished by the sixth grade year before last. Such a result indicates that we have not given girls a chance heretofore, or allowed them an opportunity to do the work in which they are so much interested.

In the very first lesson the children began to learn how to run the machine and how to thread it. We talked over the materials and utensils that would be needed and they decided to make a petticoat, because straight seams would be easier to learn on. In the next lesson they basted their skirts and most of them stitched them.

During these first few lessons I gave them a good deal of assistance; in fact, I stood by the machine and kept one foot on the treadle and helped them keep their work straight, to give them confidence. By the time they were ready for the hem and placket, they could go to the machine alone, thread it, stitch straight, and turn edges as well as anybody. All of them did not get it just right the first time, but we had our tension loose enough so that ripping it out was not too much of a task, and we decided in the beginning that anything worth doing was worth doing well.

By the time they had finished their skirts, they had acquired sufficient speed to make a night gown in much shorter time. One girl made it in one lesson, the majority in two, and a few spent three lessons on it. Between one third and one half the class made either bloomers or drawers. In the fall these girls will make dress and bloomers to match. We have made dress and petticoat in the fourth grade with no previous work.

This year, of course, the garments will be made better and in shorter time. The surprising part has been that the third grade group work better and are, if possible, more interested than the fourth grade. Our handwork has been the necessary basting, gathering, sewing on buttons, and making button-holes for the completion of the garment, and this has been so planned that the children may be able to do this when unable to get to a machine.

The equipment has been far from ideal in most of the schools. Sometimes the work has been done in school rooms with two machines, while the classes have had an enrollment of 15 to 40. In the large classes

we spent some time after school hours, but this could never be for very long, as my time had to be divided between so many schools; but all the work was done in the school building under supervision. Each girl has promised to make at least one garment alone during the summer and bring it in the fall for inspection. Quite a number have been promised machines by their fathers.

This year the children made their cooking outfits and an undergarment in the fifth grade, but this fall we hope to have this done in the fourth grade after the dress and bloomers have been completed, and we plan to begin our food work in the fifth grade instead of the sixth. All our food work is given with the meal as a basis, and in the sixth grade we begin with planning a simple breakfast, luncheon, and supper, and then prepare and serve dishes suitable for these meals. Several times during the term, the class prepare and serve meals.

In Junior High School the pupils have some choice, but we try to see that they get an equal amount of time in clothing and in food work. Our work in home management and laundry is given in connection with the food work, and the clothing budget is given with clothing work. Because of limited space and equipment we have not been able to develop the work that we hope to give when we get our new building.

Year before last, with Miss Sweeney at the head of the Home Economics Department of the University of Kentucky, part of our Senior High School work was given in the University Practice House. Last year, while Miss Sweeney was in France, the acting head did not think this was desirable; hence all of our work was limited to our school laboratories. We used the "Ellis Method of Household Accounting" and planned our food work on the basis of the families studied. More emphasis than before was placed on dietetic work and on the selection and cost of food, and the time necessary for its preparation. The clothing work included the clothing budget, cleaning, dyeing, laundering, repairing, renovating, and remaking garments.

The girls were so interested that nearly every girl in Senior High School that could arrange her schedule, was registered in our department for an elective course and many took every course that was offered. Our household arts work receives the same credit that any other subject receives, and the year of Junior work is compulsory.

SOME SUGGESTIONS FROM THE TEXTILE SECTION

MIRIAM BIRDSEYE

Chairman, Committee on Standardization of Textile Fabrics

At the recent annual meeting of the American Home Economics Association at Blue Ridge, North Carolina, the Textile Section proposed and secured the adoption of the two important resolutions quoted below:

WHEREAS, We as home economics teachers realize that women form the bulk of retail purchasers of textile fabrics, and whereas we believe that in the interests of efficient homemaking and of individual and national thrift they should be trained to select such fabrics with discrimination and to study expenditures for clothing in relation to income; therefore be it

Resolved, That this Association urge all teachers of clothing in elementary and high schools, vocational schools, normal schools, and colleges, and all home economics extension staffs to feature the selection of textile fabrics and the clothing budget in their courses of instruction during the coming year; and further, that it request the active coöperation of the General Federation of Women's Clubs and of women's magazines and farm journals in bringing these matters to the attention of American women and girls.

AND WHEREAS, We believe that a large percentage of American women are ready today to create and maintain a market for textile fabrics conforming to reasonable standards, and know that we can readily reach these women and others through the various types of home economics teaching in which our members are engaged; be it

Resolved, That this Association invite the coöperation of associations of manufacturers, jobbers, and retailers, in determining such standards, and in putting on the market a limited number of standardized fabrics of various grades on which is placed some identifying symbol to signify such standardization.

The first resolution grew out of reports made by two committees appointed the previous year to consider respectively (1) the extent to which courses in textiles and clothing in high schools, normal schools, and colleges were being used to teach girls to buy wisely clothing and household furnishing materials, (2) the content of household arts courses in graded and high schools. Both of these reports indicated that much more time and attention should be devoted to the clothing budget and to clothing selection than is being given at the present time in the majority of schools.

It seems reasonable to suppose that in household arts courses the study of textiles is undertaken not primarily for its historical, economic, or aesthetic interest, but chiefly for the purpose of teaching the students how to secure, with the part of their income that may legitimately be expended for clothing and household textiles, a greater amount of real satisfaction than would be possible without the understanding of needs and values gained from the course. To fail to use textile work to develop such power in the student is to be like a gardener so absorbed in weeding and watering that he neglects to pluck the fruit which is the goal of all his effort.

The first resolution, with its emphasis upon clothing selection and the clothing budget, is a peculiarly timely one. Never before has there been such a year for the teaching of clothing. The stage is set with a magnificent disregard of expense that will never, let us hope, be repeated. It is only twelve months since, in a war crisis, the government was calling upon people everywhere to give their thought and time to clothing conservation, and women who had never made over a garment sat at the feet of their more experienced neighbors or of extension teachers and tasted the moral and economic reward that comes from making a promising cast-off make good its promise. Women will remember that sensation all the longer because the high price of ready-made clothing makes sensible remodeling financially more profitable than ever before. In contrast many women are buying more lavishly than they have ever done. War profits and war wages burn in the pockets of men and their families and of the thousands of young women in clerical and industrial positions who are receiving real money for almost the first time in their lives. The advance in the standard of living is marked more by the way people dress than by any other symptom. Even the most prudent are replenishing their wardrobes after two years of war self-denial; and the unprecedented rush of buying is sending prices sky-rocketing with no prospect of an immediate drop. In many families incomes have not risen to keep pace with rising living costs, and women are asking guidance in making the clothing allowance accomplish the well-nigh impossible. Because of the scarcity and high cost of raw material, qualities in many lines have been reduced and fabrics and garments purchased at high prices have a tendency to fall to pieces on our very backs in a way that makes us feel that some kind of clothing insurance would be a profitable investment.

Under these unusual and often contradictory conditions, the teacher of clothing has the opportunity to become a leader and guide just as the

teacher of foods was leader and guide during the war emergency. All that is needed is the vision, with the skill and determination to make the vision come true. This is no time for theorizing or for harking back to the past, except as the past has lessons for today. The teacher of textiles and clothing should take counsel with her students and their mothers and with other thoughtful women in her town as to the problems they are facing, and should shape her course of study to give the help that is needed. Only close contact with the home and its problems will enable her to make her teaching fit the times.

"Standardization of textiles," as outlined in the second resolution, i.e., putting on the market certain lines of fabrics in wool, cotton, silk and linen guaranteed by associations of manufacturers as having passed certain standard tests for durability and other qualities, and privileged to bear a symbol devised by the Association to signify such standardization, might perhaps be likened to a device for taking out clothing insurance. As reliable insurance benefits all parties concerned—the insured, the company, and the agent—so this standardization scheme should be made to work for the mutual benefit of consumer, manufacturer, and merchant. In these days of uncertainty intelligent women are likely to be willing to pay well for a fabric guaranteed to have been prepared with maximum knowledge and skill for the purpose it is intended to serve. It was with this thought, and with the knowledge that through our various fields of teaching—the schools, the extension field, women's clubs, and women's publications—we can bring an idea quickly to the attention of thousands of women that the second resolution was proposed. It was anticipated, however, that if it proved feasible to bring about some such standardization, the thing could not be done in a moment, but must be accomplished through a sane and constructive movement that would begin modestly and gather force through the years.

For this reason the second resolution cannot be commented upon at the present time with the same definiteness as can the first. A Central Committee on Standardization of Textile Fabrics has been appointed: Miriam Birdseye, States Relations Service, United States Department of Agriculture, Chairman; Mrs. Mary Schenck Woolman, Boston, Massachusetts; Mrs. Ellen B. McGowan, Teachers College; Zella E. Bigelow, Federal Board for Vocational Education; Florence Winchell, The Lincoln School, New York City; Mabel Trilling, University of Chicago (Chairman, Textile Section, A. H. E. A.).

The chairman intends also to appoint an advisory committee with at least one representative from each state, who will coöperate in her own

locality by carrying out specific suggestions made by the Central Committee. It is thus hoped to secure the help and advice of a large number of well trained textile women, although the Central Committee must of necessity be a small body whose members can reasonably hope to get together at intervals.

The Central Committee has already begun a study of the textile market. As was anticipated, the situation is a complicated one. Some of the elements seem to be as follows: an unprecedented labor turn-over resulting in irresponsibility and temporary inefficiency on the part of many employees in the textile and garment trades; a tremendous volume of buying by consumers, resulting in competition among retailers for the output of factories scarcely able to keep up with domestic orders; large foreign demands on American markets; high prices of certain raw materials; the dye situation not as yet entirely resolved. All these conditions are agitating the market, which resembles nothing so much as a boiling, seething caldron.

This probably means that no work on standardization on a large scale is in order until conditions have somewhat steadied themselves and certain preliminary work has been done. The committee hopes to report in coming numbers of the JOURNAL the progress it makes in its investigations.

In the meantime it would like to suggest that it is quite evident our best route is through the consumer and the retailer to the manufacturer. Apparently the first steps should be to influence the girl and the woman who spend to regulate their purchases of clothing by a simple budget system, to teach them to consider the qualities they should demand in fabrics for certain uses, and to give them the habit not only of making the usual simple textile tests but of recognizing and patronizing such lines of fabrics carried by local stores or manufactured in local mills as have already been standardized to a certain degree by their producers.[1]

In the store where quality is a watch word, there will be found certain lines of cottons, silks, and woolen goods that have been handled for years and have given universal satisfaction. An experienced salesman or buyer of the department can speak with authority about such goods. For example, in such a store one can still find silks, selling at nearly double their price of two years ago, it is true, but of the original excellent quality, which if made up into petticoats will outlast any three of

[1] In this connection see "Teaching the Clothing Budget." by Janet G. Cation, *Jour. Home Econ.*, December, 1918, and "Textile Lessons for Homemakers," by Grace G. Denny, *Jour. Home Econ.*, June, 1919.

the "bargains" in silk petticoats displayed by the same store at various sales. The line of colors will not be as complete as in some of the novelty lines but the wearing quality and the style are there.

The same thing is true of many cotton materials. sold by name and still true to the standard maintained for many years, although the price has risen.

Every girl and every girl's mother should learn what these lines of goods are, becoming familiar with the name of the maker as well as with the trade name, and listing these fabrics under the purpose for which they are best fitted. The names in such lists will differ in different parts of the country, according to the source of supply, but every reliable store can be counted upon to give interested assistance in making out such a list. In this connection the clothing instructor should cultivate the acquaintance of the merchandizing manager, and should secure from him an introduction to his buyers. It need not be added that any work with retail stores should be undertaken in a spirit of the fullest coöperation, and any studies made should have a thoroughly constructive object.

Among fabrics for which standardization might be considered are cottons for underwear; silks for underskirts, tailored shirt waists, and dresses; wool and cotton goods for school dresses, and cottons for children's play clothes. The chairman of this committee will be glad to receive copies of lists representing class judgment and class tests on such fabrics, especially when the tests include data regarding actual wearing quality, as, for example, date of purchase, use, kind of wear, method and frequency of laundering, and length of service. Cotton and silk stockings might well be included in such practical tests, and incidentally, interesting experiments might be planned to show the effect of careful and careless laundering on the life of such fabrics. The value of such a list will be greatly augmented if it is supplemented by a list of uses for which standardized fabrics are not locally procurable, and for which in the judgment of the class some standard fabric should be provided.

The committee on standardization hopes to contribute from time to time or to secure for publication in the JOURNAL articles of interest in connection with the two resolutions quoted at the beginning of this paper. It will welcome correspondence or suggestions from teachers or from homemakers interested in these subjects.

FAT ABSORPTION AND DECOMPOSITION IN FRYING

Three papers dealing with absorption and decomposition of fat in frying were presented at the meeting of the American Home Economics Association at Blue Ridge. One by Agnes Fay Morgan and Ella Rau Cozens, is published in this issue. The others, by Sybil Woodruff and Katharine Blunt, and by Elizabeth Sprague will appear later. Dr. Morgan's and Miss Woodruff's papers both give figures on fat absorption and all three include results on fat decomposition. Dr. Morgan notes the differences in a number of the fat constants between the original fat and that left in the pan after frying. Miss Woodruff's gives changes in a smaller number of constants—iodine number, acidity, and relative quantity of reducing substances, such as acrolein,—both for the fat left in the pan and for that extracted from the fried foods. Miss Sprague reports the temperatures at which acrolein is given off from the fats. Thus the decomposition of the fat is observed from three different angles.

In considering parts of these papers, the less chemically minded readers of the JOURNAL will be glad to be reminded of the significance of some of the fat constants discussed. Comment is hardly necessary on the acidity, the very small amount of free acid in the fat. The slight increase in this during frying is probably due to very slight hydrolysis of the glycerides, though it might also come from other kinds of splitting. The figures for expressing acidity used by Morgan and Cozens—milligrams of KOH used to neutralize 1 gram of the fat—may be changed approximately to percentage of acidity by dividing by 2. (See Sherman's Organic Analysis p. 147, or Leach p. 500.)

The iodine number is a measure of the unsaturated glycerides present, olein, linolein, etc. Decrease in this constant therefore means saturation of some of these double bonds, or splitting of the molecules at these bonds, and is probably due to oxidation.

The significance of the slight decrease in refractive index is less clear. It may be due to some splitting of these molecules or to removal of double bonds. Direct addition of oxygen, on the other hand, without splitting, seems usually to raise the refractive index.

The JOURNAL is aware that other workers have material on fat absorption and decomposition and therefore hopes that the publication of these three papers may lead to discussion and presentation of other data.

The chemical side of experimental cookery, illustrated by these papers, is one of the lines it is desirable to further by the coöperative research discussed in the Science Section of the A. H. E. A.

KATHARINE BLUNT,
Chairman, Science Section.

CHANGES IN PHYSICAL AND CHEMICAL CONSTANTS OF FATS USED FOR FRYING A STANDARD DOUGH

AGNES FAY MORGAN AND ELLA RAU COZENS
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The double problem of the conditions governing the absorption of fat by fried foods and of the effect upon fats of their use in frying has so far scarcely been attacked. The impression which has long prevailed that considerable hydrolysis occurs in fats which have been heated to a high temperature has not been well grounded in experimental data, nor has any special effort been put forth to disprove what has been for some time recognized as at least an exaggeration. Moreover, the differences in physical and chemical properties of fats which have been merely heated, and those which while hot have been used for frying foods have not been sufficiently studied to warrant any generalizations including both classes.

The work of Mary McKee[1] upon the absorption of fat in frying doughnuts of varied composition was apparently the first attempt to fix certain conditions while varying others, in order to discover the factors which govern the amount of absorption of fat in frying food. The number of variables in this problem is relatively small, and the discovery of the governing factors should be therefore relatively easy.

The variables are (1) nature, both physical and chemical, of the fried food; (2) physical and chemical characters of the fat; (3) temperature of frying; (4) length of time of frying. The maintenance of suitable control experiments in which all conditions but that to be tested are reproduced is, of course, indispensable.

Under the first of the variables should be included particularly the content of fat, water, protein, sugar, salt, starch; the shape, surface exposed, weight, density, of the food used for frying.

[1] McKee, M. C., Fat Absorption in Frying Doughnuts. *Jour. Home Econ.*, 10 (1918), pp. 18–20.

Under the second should be included the usually determined physical and chemical constants of fats, particularly the iodine number, acidity, melting point, index of refraction, Reichert-Meissl and saponification numbers.

The temperature of the fat used in a single set of frying experiments should be maintained carefully at a given value, and the length of time of frying each sample of food should be either fixed or varied as the experiment requires.

It is evident that of all these changeable conditions those relating to the nature of the food fried are most apt to produce definite effects upon the amount of fat absorbed. It is possible that fat absorption under these conditions is not unlike the imbibition of water by colloids, and that the proportion of water and molecular solutions of salt or sugar, as well as of fat, and colloidal substances such as gluten or starch, may govern the permeability of the mixture by the hot fat.

It has long been known by practical cooks that fat of too low temperature will be absorbed in an undesirable manner, if not undesirable amount, by food mixtures fried therein. This effect may, of course, be due to the absence of the immediate surface hardening which hot fat produces, and to the accompanying change in water and solution content of the outer layer of the food.

In the study here reported the character of the food fried, the temperature and time of frying were kept constant, the nature of the fat only being varied. Moreover certain physical and chemical constants of the fats were determined before and after frying, as well as before and after simple heating in some cases. It was hoped that any selective absorption of certain glycerides might thus be detected.

Fulmer and Manchester[2] reported certain changes particularly in the iodine number, refractive index, and free fatty acids, of cottonseed oil heated to 220°C, and noted that these changes were dependent upon the time, as well as temperature of heating. Below 220° they discovered no increase in free fatty acids, but above that temperature the acidity increased rapidly.

Blunt and Feeney[3] in their study of smoking temperatures found that fat which had been used in cooking had both a lower smoking point and a higher acidity than fresh fat.

[2] Fulmer and Manchester, *Jour. Amer. Chem. Soc.*, 30 (1908), p. 1477.
[3] Blunt, K. and Feeney, C., *Jour. Home Econ.*, 7 (1915), pp. 535–541.

Masters and Smith[4] determined the usual physical and chemical constants in fresh cottonseed oil and butter and in samples extracted from pastry baked in an oven maintained at 200°C. The iodine values showed a decrease, the acetyl value and refractive index an increase, and the acidity a slight increase. The authors conclude that the first change in heated fats may be the hydroxylation of the unsaturated molecule, a change identical with that observed in the blowing of oils. The oxidation is apparently measurable only when the fat is considerably overcooked, or used in very thin pastries with large surface exposure.

I. ABSORPTION OF VARIOUS FATS BY A STANDARD DOUGH

1. The food used as standard for frying

In the present study a standard doughnut dough made according to the following recipe was used throughout all experiments.

MATERIALS	GRAMS	MEASURE
Butter	6	½ tbsp.
Egg	11	3 tbsp.
Sugar	50	¼ c.
Baking powder	4	1 tsp.
Salt	1	¼ tsp.
Flour	148	1¼ c.
Milk (evaporated milk and water 1:1.)	57	¼ c.

The doughnuts made from this dough were rolled out to a uniform thickness of one-half inch, and cut in every case with the same cutter, two and one-half inches in outside diameter.

2. Time and temperature of fat used in frying

Each fat was used for frying at 205°C. and 210°C., the time being three minutes in each case. The fat was not allowed to vary more than one degree above or two degrees below the stated temperature throughout the frying.

3. Fat and water analysis of dough and doughnuts

Two sets of duplicate samples of the dough were taken immediately after rolling out for drying and for fat extraction by the Soxhlet method.

[4] Masters, H. and Smith, H., *The Analyst*, 39 (1914), pp. 347–350.

Care was taken in the latter process to use specially purified ether, and to extract for at least twenty-four hours.

After the frying the doughnuts were allowed to drain for a few moments, then transferred to a covered dish with an outlet for the steam. After exactly an hour two sets of duplicate samples for fat and water determinations were removed and treated as were the dough samples.

The results of these determinations are summarized in table I.

TABLE 1

Percentage of various fats absorbed by a standard dough

FAT	FAT CALCULATED TO WATER-FREE BASIS			FAT ABSORBED	
	Dough	Doughnut fried at 205°C.	Doughnut fried at 210°C.	At 205°C.	At 210°C.
	per cent	*per cent*	*per cent*	*per cent*	*per cent*
Lard	6.74	22.86	24.84	16.12	18.10
Olive oil	7.95	30.36	27.96	22.41	20.01
Crisco	6.70	30.58	28.46	23.88	21.76
Cottolene	7.37	27.44	30.58	20.07	23.21
Using fresh weight basis					
Lard	4.49	17.77	19.36	13.28	14.87
Olive oil	5.47	24.40		18.93	
Crisco	4.57	25.53	22.85	20.96	18.28
Cottolene	4.94	21.73	24.36	16.78	19.92
Average				17.49	17.36

4. *Fat absorption*

There is apparent no relation between the temperatures of frying and the amount of fat absorbed where the variation is as slight as from 205°C. to 210°C.

The quantity of fat present in the finished doughnuts is considerably less than that reported by Miss McKee, an average of 17.4 per cent of the fresh weight as compared with the 34.7 per cent reported by the former investigator. The difference in composition of the dough can scarcely account for so large a variation, since the recipes used were almost identical, as indicated by the following comparison:

Comparison of recipes

MATERIALS	MC KEE RECIPE	RECIPE USED IN PRESENT STUDY	DIFFERENCE	
			Grams	Measure
	grams	*grams*		
Sugar	300	300	0	0
Egg	84	66	18	¼ c.
Fat	34	36	2	0
Baking powder	25	24	1	0
Milk	340	352	12	0
Flour	681 plus 28 used in rolling out dough	888	179	1½ c.
Salt	Not given	1		

It will be noted that the only differences lie in the proportion of egg, there being ½ cup, or ¼ of the amount of egg less in our recipe than in the standard dough described by Miss McKee, and in the flour, of which we used 1½ cups, or one-quarter, more. Our doughnuts were light, fluffy, and sufficiently sweet and crisp to be entirely palatable.

The results obtained in our study approximate more closely than did Miss McKee's the percentage of fat present in the doughnuts usually offered for sale by bakeries, and that given in the Bulletin of the Department of Agriculture,[5] 21.0 per cent.

II. CHANGES IN PHYSICAL AND CHEMICAL CONSTANTS OF THE FATS USED IN FRYING DOUGHNUTS

Samples of the fresh fats and of those in which six of the doughnuts described above had been fried were tested for iodin value, melting point, refractive index, and acidity.

1. The iodin absorption number

The Hanus[6] method was used, and especial care was taken to keep the solutions at uniform temperature throughout the operations. The results obtained fall within the limits given by Lewkowitsch,[7] and show a decrease of 0.2 to 2 per cent in the amount of iodin absorbed by the

[5] The Chemical Composition of American Food Materials, *U. S. Dept. Agr., O. E. S.* Bulletin 28.

[6] U. S. Dept. of Agr. Bur. of Chem., Bulletin 107, pp. 136–137.

[7] Lewkowitsch, Chemical Technology and Analysis of Oils, Fats and Waxes. 1913, v. I, p. 410.

fats after being used. There appears no definite relation between the change in the iodin number and the per cent of fat absorbed by the doughnuts. In order to discover whether any relation exists between the amount of dough exposed to the hot fat and the decrease in iodin number, fourteen doughnuts in succession were fried at 210°C. for three minutes in a sample of crisco, as compared with the six previously used. The length of time of heating was thus increased in proportion also, since the same vessel and amount of fat were used in each case, and only one doughnut was fried at a time. The result showed a decrease in the iodin number of 1.26 per cent as compared with the 0.23 per cent previously obtained. Table 2 summarizes these data.

The results here given are in accord with those obtained by Masters and Smith.[8]

TABLE 2

Changes in iodin number of fats used for frying a standard dough

FAT	FRESH	AFTER FRYING SIX DOUGHNUTS	DECREASE
Lard	65.04	63.04	2.00
Olive oil	83.72	82.20	1.52
Crisco	78.03	77.80	0.23
Crisco	75.29	74.03	1.26
		AFTER FRYING FOURTEEN DOUGHNUTS	
Cottolene	94.51	93.67	0.84

TABLE 3

Changes in melting points of fats used for frying a standard dough

FAT	FRESH FAT	AFTER FRYING SIX DOUGHNUTS	DIFFERENCE
	degrees C.	*degrees C.*	*degrees C.*
Crisco	38.0	36.2	1.8
Cottolene	43.8	43.6	0.2
Lard	44.0	43.1	0.9

2. Melting point

The melting points of the fresh and used fats were determined by drawing the fat into capillary tubes in the usual manner, the melting

[8] Loc. cit.

point being taken twelve hours later in each case. The melting points were lowered by use as shown in table 3.

3. Index of refraction

The Zeiss butyro refractometer[9] was the instrument used, the hard fats being maintained at a temperature of 40°C. while the oil was maintained at 19°C.

The formula R equals R_1 plus 0.55 $(T - T_1)$ was used in which R is the reading reduced to T, R_1 the reading at temperature T_1, T the standard temperature, and 0.55 the correction for 1°C. in scale divisions. For the oil, the factor 0.58 was used.

TABLE 4

Changes in the refractive indices of fats used for frying a standard dough

FAT	FRESH FAT	AFTER FRYING SIX DOUGHNUTS	DIFFERENCE $(N)_D$ 40°C.	FAT ABSORBED BY DOUGHNUTS CALCULATED TO WATER-FREE BASIS	
				205°C.	210°C.
Lard	1.4601	1.4603	0.0002	16.12	18.10
Olive oil	1.4621 (At 18.8°)	1.4622	0.0001	22.41	20.01
Crisco	1.4622	1.4627	0.0005	23.88	21.76
Cottolene	1.4640	1.4641	0.0001	20.07	23.21

It is interesting to note that the refractive indices and amount of fat absorbed by the doughnuts are parallel, the fats absorbed in larger amounts showing higher refractive indices, and also larger increases in these numbers. It is obvious that the refractive index of a fat must be dependent upon its chemical constitution, and that any change indicated by a decrease in the iodin number will be reflected in the refractive index.[10]

4. Free fatty acid content

The method used was the usual one of titration of the fat in 95 per cent alcohol solution against N/20 sodium hydroxide, phenolphthalein being used as indicator. The temperature was maintained at 60°C. The results are given in table 5.

[9] U. S. Dept. Agr. Bur. of Chem. Bulletin 107, p. 132.

[10] Heim, F., *Bull. Agr. Intelligence*, 7 (1916), pp. 1529–1532.

TABLE 5

Changes in the free fatty acid content of fats used for frying a standard dough

FAT	FRESH FAT	AFTER FRYING SIX DOUGHOUTS	INCREASE	PER CENT INCREASE	PER CENT FAT ABSORBED CALCULATED TO WATER-FREE BASIS	
	KOH per gram	KOH per gram			205°	210°
	mgm.	*mgm.*				
Lard	1.095	1.134	0.041	3.7	16.12	18.10
Olive oil	0.719	0.823	0.104	14.4	22.41	20.01
Crisco	0.350	0.389	0.039	11.2	23.88	21.76
Cottolene	0.173	0.207	0.034	19.6	20.07	23.21

Here again it may be seen that a relation seems to exist between the quantities of fat absorbed by the doughnuts and the acidity of the fats, the fats having least acidity being absorbed to the greatest extent.

In order to discover whether heating alone may account for the increased acidity of the fats, samples of these fats were heated alone at the same temperature and for the same length of time as that consumed in the frying. The acidity was then determined as described above. Table 6 gives the results thus obtained.

TABLE 6

Changes in the free fatty acid content of heated fats

FAT	FRESH FAT	AFTER HEATING	DIFFERENCE
	KOH per gram	KOH per gram	
	mgm.	*mgm.*	
Lard	1.09	1.04	−0.05
Olive oil	0.71	0.73	+0.02
Crisco	0.34	0.30	−0.04
Cottolene	0.17	0.14	−0.03

Thus it will be seen that heating the fats alone does not bring about consistently increased acidity as does heating in the presence of food. These results are comparable with those reported by Masters and Smith and must be explained as showing both an increased surface hydrolysis and oxidation and a possible catalytic action of the flour mixture upon the hot fats.

CONCLUSIONS

It is evident that much more work remains to be done before any definite information can be obtained concerning the conditions governing the absorption of hot fat by flour mixtures. But from the limited data available it may be stated that:

1. There is considerable variation in the amount of different fats absorbed by a standard dough mixture, fried at a constant temperature for a fixed length of time. The data obtained do not support the claims of relatively lower absorption made for proprietary fats.

2. The fats used for frying a given quantity of the standard dough showed consistent decreases in iodin number, lowering of melting points, and increases in acidity and refractive index. All of these changes point to partial hydrolysis and oxidation of the fats.

3. Fats heated alone for the same length of time as those used for frying show no consistent change in acidity, but considerable decrease in iodin number. This indicates some oxidation, but uncertain hydrolysis, due to heating alone.

4. Some relation seems to exist between quantity of fat absorbed by the dough fried at 210°C. and acidity of the fat. Since the larger amounts of absorption occur in the case of the less acid fats there would appear to be either a selective absorption of the unchanged glycerides or a decreased permeability of the dough due to the action of the free fatty acids.

In general, the increase of acidity after the frying is greater in those fats showing the larger amounts of absorption.

FOR THE HOMEMAKER

HOME ECONOMICS AND CHILD WELFARE[1]

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When the American Home Economics Association was formally organized at Washington, D. C., December, 1908, it stated as its object, "the improvement of living conditions in the home, the institutional household, and the community"; and, further, mentioned the specific means by which it aimed to fulfil its purpose: "By the study of problems connected with the household; by securing recognition of subjects related to the home in the curricula of existing schools and colleges; by securing the establishment and standardization of professional courses and schools for the training of teachers, and of home, institutional, social, and municipal workers; by encouraging and aiding investigations and research in universities, and by the State and Federal governments; by publications professional and popular, and by meetings, local and national, that knowledge may be increased, and especially that public opinion may be informed and advancement made secure by legislative enactment."

In regard to membership, the Association was made widely inclusive, the following being eligible: "All professionally concerned with this field as teachers of domestic science and art, home and institutional economics, and allied educational fields; students, investigators, housekeepers, institution managers, social and municipal workers, interested housewives and homemakers; professional workers in allied fields, as educators, physicians, hygienists, sanitary experts, architects, and others; clubs, associations, societies, and institutions interested in the work of this Association."

Only one condition as to eligibility for membership was made, namely "active interest"—members must be "actively interested in home problems."

[1] Presented at the Twelfth Annual Meeting of the American Home Economics Association, Blue Ridge, N. C., June, 1919.

The American Home Economics Association did not represent a new movement, nor was it entirely a further development of the National Household Economic Association, nor of the Lake Placid Conference on Home Economics. The home economics movement is as old as the home itself; the first home economics association consisted of the two women, whoever they were and wherever they were, who first exchanged "tested" recipes or confided to each other their discoveries in the matter of labor-saving devices or the utilizing of left-overs. These two women, moreover, were no doubt quite as scientific as women one occasionally meets even at the present time, who tell us that they "know nothing (or care less) about calories but *can* cook." In short, every housekeeper is vitally interested in home economics, and a home economics association is simply a socialization of that vital interest.

When the Children's Bureau was established by Act of Congress in April, 1912, it was directed by law "to investigate and report . . . upon all matters pertaining to the welfare of children and child life among all classes of our people . . . especially . . . the questions of infant mortality, the birth rate, orphanage, juvenile courts, desertion, dangerous occupations, accidents and diseases of children, employment (and) legislation affecting children in the several States and Territories."

In the seven years of its existence the bureau has issued, exclusive of annual reports, 53 publications, the majority of them the results of studies made of the conditions surrounding children and child life in certain selected sections of the country. Six others are in press; and ten others in preparation.

One group of studies is concerned with the problem of infant mortality, nine of these being intensive studies of the problem of infant mortality in selected cities, namely, Johnstown, Pennsylvania; Montclair, New Jersey; Manchester, New Hampshire; Waterbury, Connecticut; Saginaw, Michigan; Akron, Ohio; New Bedford and Brockton, Massachusetts; and Baltimore, Maryland. These intensive studies brought to light certain fundamental facts in regard to the causes of infant deaths, and the means whereby they may be prevented. Among the causes, two are outstanding: low family income and ignorance on the part of the mother and father.

Another group of studies made by the bureau has to do with the condition of children in rural communities. The results of three such studies have been published; they were made respectively in rural counties of Kansas, North Carolina, and Montana. Again, these studies

bring clearly to light the fact that insufficient money or insufficient knowledge is responsible for the loss of life, the absence of health, and the inadequacy of those other necessities, education and recreation, among the children of the rural sections of our country.

These rural studies concern themselves not only with the condition of children, but also with a subject which is more intimately and more vitally related to the welfare of children than any other subject whatever—maternity care. The health and strength of the infant depends upon the health and strength of the mother; the care of the mother during the nine months preceding the birth of a child very largely determines not only the well-being of that child, but its life or death. A report on Maternal Mortality from All Conditions Connected with Childbirth, published by the Bureau, discusses this important subject in detail. And, again, the conclusion reached is that poor prenatal and maternity care, or none, can almost invariably be attributed to poverty or ignorance in greater or lesser degree.

Another group of studies made by the bureau is concerned with the condition of children who, because they are dependent, defective, or delinquent, require special care, either in their own homes or in suitable institutions. And here, again, it becomes apparent not only that many such children are not receiving the care they need, but that the reasons are, once more, poverty and ignorance.

A group of studies bearing upon the problem of the child in industry has been made by the bureau. Three intensive studies of children prematurely employed (in North and South Carolina, in Rhode Island, and in Biloxi, Mississippi) once more make clear that family need and parental ignorance are among the basic causes of child labor. Great numbers of children were put to work because their fathers could not earn enough to support their families, and great numbers of children also went to work because their parents did not know the value, to children, of education.

Indeed, one may say that all the intensive studies of the Children's Bureau have shown that economic pressure and ignorance are at the root of practically all the unfortunate conditions in which children are living (or dying) in this country; and that child welfare includes higher wages for fathers, mothers' pensions, and the education of both fathers and mothers in infant care and child care and in the prime importance of giving such care in all its details.

How is this necessary work to be done? That half of it which has to

do with the securing of an income sufficient to maintain a healthful standard of living can only be accomplished by an unflagging effort on the part of all persons to educate themselves in regard to economic justice—and to act on their education. There need be no vague nor over-individualistic efforts to this end: such work is already being done through existing organizations which have the confidence and respect of the community, such as the National Consumers League, the National Child Labor Committee, the National Woman's Trade Union League, the American Federation of Labor, and other similar organizations.

As for the ignorance of parents—how is this to be met and overcome? There is only one means, and that is education through coöperation, the coöperation of individual specialists, of organizations, and of the parents. Some part of this work has been and is being done by the Children's Bureau, through its studies and the circulation of the reports based upon those studies. Other bureaus and organizations also are doing such work, through their several means and methods. Only through the coöperation of all can full results be obtained—and obtained speedily.

The Children's Bureau is in a position to speak with some authority upon the effectualness of such mutual coöperation, for the reason that it has had this coöperation in very great measures, and with noteworthy results. The work of Children's Year, which it undertook in coöperation with the Child Conservation Section of the Council of National Defense, furnishes a notable example. Not only did the bureau and the Council of National Defense coöperate in Children's Year, but the General Federation of Women's Clubs, the Red Cross Society, State and County Boards of Health, Instructive Visiting Nurses Associations, Baby Welfare Organizations, and smaller and more local associations of many types: all these coöperated. During the weighing and measuring test a minister in a typically American suburban parish was asked what work the Ladies Foreign Missionary Society of his church was engaged in just then, and he replied: "The ladies who are not weighing and measuring babies are making a local birth registration test, and the president of the society is getting up a child welfare conference."

At the request of the President of the United States, the Secretary of Labor called a meeting in Washington, in May of this year, of the Children's Bureau Conference on Child Welfare Standards. Not only many American authorities on the subject of child welfare, but representatives of Belgium, France, Great Britain, Italy, Japan, and Serbia

were present. The foreign delegates reported especially upon what their nations had learned as a result of their war experiences, concerning the welfare of children. The American experts discussed the National Standards which were recommended by the three following sections into which the Washington Conference was divided: (1) Public protection of life of mothers and children; (2) Child labor and education; (3) Children in need of special care.

At a general section of the Conference, economic and social aspects of child welfare standards were discussed, and an adequate wage for the father, wholesome living conditions, proper recreation, and the abolition of racial discrimination were recognized as fundamental in any child welfare problem.

Minimum Standards were formulated by the Conference; these standards actually are minimum, and in no way define the measure of protection which an advanced state or community might wish to give its children.

These standards will be "submitted;" the great point is, submitted to whom? The answer, of course, is the community—those persons in the community who, because they appreciate the importance of the task, and are equipped or can equip themselves for it, are what one may describe as "called" to do the necessary educational work with all members of the community, but most especially with fathers and mothers.

The education of fathers and mothers in the care of children can be done only by coöperation, because it must be done more or less individually. The Children's Bureau can and does send out its well-known group of bulletins on Prenatal, Infant, and Child Care, and send them out in enormous numbers; but the bureau cannot go into an individual home and tell the mother why milk is an indispensable food—not for children as such, but for the actual, individual children playing about the room; and this is necessary, if full results are to be obtained. One of the tendencies of human nature which we are constantly combating is the tendency of a woman to ask a neighbor, whom she knows, to advise her, even on matters of which the neighbor is as ignorant as herself. This tendency, like most others, should not be combated, but educated and trained: a neighbor who knows what to tell the woman when she comes to ask should be provided.

And this is exactly what no less an organization than the United States Government has done; the Home Demonstration Agent is that

neighbor. "Of course she goes into the community for a special purpose," a member of the Department of Agriculture recently said, "but she does a great deal more than that; you see, the women ask her everything." That is one great point—the women ask her everything; another great point is that she usually knows, or she knows where to find out, the answers to the questions they ask her. Moreover, having their confidence, and being actually, in person as well as in spirit, a neighbor, she has many opportunities to give them useful and valuable information for which it would not occur to them to ask—not knowing that they need it.

For example in the matter of prenatal care, an overwhelming number of women do not know how important it is that they put themselves under the care of a physician from the very beginning of pregnancy. And there are many husbands who do not appreciate the fact that good confinement care is absolutely essential to the well-being of their wives. We may furnish "literature" on these subjects, but it remains for the personal friend, the neighbor, to make sure that it is put to actual, practical use.

The coöperation of all organizations large and small, is needed for the solution of the great problems of child welfare, but there is perhaps no type of organization which has what children call "such a good start" as a Home Economics Association. It has been said of the home economics movement in America that it began in the kitchen. For the purposes of child welfare, it could scarcely have begun in a better place. Whatever else may be the problems of a mother, one problem she has daily, three times daily, and that is the preparation of the family meals. Whether she has servants or "does her own work," her kitchen is one of her chief and most insistent concerns. She is there—and when the home economics movement began in America, it—might one not say instinctively?—began there.

When the home economics worker, whether County Demonstration Agent, Visiting Housekeeper, or Dietitian, goes to her work, she goes into the kitchens of the community. And while she is teaching one thing, she may teach other things. A home economics expert gives an interesting account of a Home Demonstration Agent who went into a farm kitchen to help the woman of the household can tomatoes. During the course of the morning that agent also taught the woman how to pasteurize milk; and, further, not only told her that breast milk was the preferred food for babies, but told her why. "There is a great deal

of time for talking about other things when one is helping can tomatoes," the home economics expert who told this story said. The great point then is: What other things does the person who is helping know?

Home economics workers naturally see less of the fathers than the mother of the families they visit. However, the fathers hear about them from the mothers, and they too ask them, if not everything, yet some things. One home economics worker made a point of observing the physical condition of the older children on the farms she visited, and of inquiring in regard to the chores they did. She was able to do a considerable amount of educational work with their fathers in this subject.

Another home economics worker noted wherever she went the presence or absence of labor-saving devices, and the conditions governing the water supply. She found that a great many men had located wells for the use of stock close to the barn, but that it had not occurred to them that the water supply for the use of the family should be near the house. Similarly with labor-saving devices—many a man had an engine to pump the water for the barn, while his wife had no such convenience even for pumping the water for laundry purposes. Education was slow in this direction, but a beginning was made—a beginning which, it is safe to say, could not have been made so well by anyone except a home economics expert.

Education in regard to the care of infants and children in the home naturally begins with the parents and is confined largely to them. In the past, such efforts have perhaps been too largely directed towards the parents; and but little account was taken of the fact that, after babyhood is passed, one cannot take care of a child without the intelligent coöperation of that child. It is an interesting fact that the JOURNAL OF HOME ECONOMICS has, from year to year in the ten years of its existence, published an increasing number of articles relating to the training of children in regard to proper habits of eating. Home economics specialists have appreciated the fact that it is not sufficient to put before children the foods they should eat; they also must be taught to eat such foods with pleasure. How shall this be done?

Persons who have much association with children tell us that one of the essentials in the accomplishment of the education of children in any habit is not trying too hard, not, as it were, "rubbing it in." One must not depend too much upon words, especially frequently repeated

words; and one should use the words "you ought," and "it is good for you," very seldom. The little boy who, when asked what he would like to have for dinner on his birthday, replied decidedly, "I don't want anything nourishing," exhibited a reaction not only essentially childlike, but characteristically human.

Perhaps the best method, especially with young children, is simply to allow them to be present when home problems are being discussed with the mother. When a child is told to "run away and play while mother talks with the lady," he is being sent away from one of his chief educational opportunities. Rather should he be encouraged—or allowed, it usually being unnecessary to encourage a child on such an occasion—to remain while mother talks with the lady. It is amazing to discover not only the amount, but the kind of information that even small children absorb under such circumstances. A home economics expert tells a delightful story which illustrates this point. A little boy of five was brought by his mother to a lecture on food values—for the reason that she had no one at home with whom to leave him. The next evening she gave the child at supper a dish of prunes for dessert. When he had finished eating them he said to her; "Mother, may I have another hundred calories of prunes?"

Children would seem to take quite as much interest in calories as grown ups do, if not more! Mr. and Mrs. Edwin Tenney Brewster, when their book, "The Nutrition of a Household," was in preparation, made a daily practice of counting the number of calories each member of the family had received at each meal, and keeping a record of them. In a very short time, the children of the family expressed a desire to keep their "own calorie books." Moreover, they did it, and with regularity and considerable accuracy.

It can scarcely be said too frequently that while home economics begins in the kitchen and concerns itself first of all with the solving of food problems, it does not (and should not) remain in the kitchen. It goes through the house, and through the immediate surroundings of the house, and thence to the community. Among the first problems it meets are the problem of sanitation, the fly problem, the problem involved in the proper disposal of waste products, the problem of the milk supply: these and a score of others it meets. It can solve them, but not alone. No one organization can solve them alone. All organizations must coöperate. With a diversity of specialists and varying degrees of specialization, there must be one and the same spirit—

the endeavor to make, not only better, but sufficiently better, the conditions under which women give birth to children, and the conditions under which those children are reared. It is not enough to investigate and to report, nor is it enough to recommend; the results of the investigating and reporting must be used, and the recommendations must be put into effect.

No workers have a larger opportunity in this field than the experts in home economics. It is not because they are scientifically trained in the fields of household arts and domestic science that the home economics experts have such an opportunity; it is rather because they, perhaps more than any other group of trained workers, appreciate the fact that the home is not simply the house, and that child welfare is not simply keeping children well, and sending them to school, and furnishing them with opportunities for play. Needless to say, the house must be healthful, and it should be beautiful. But the reason why is the important point; it is the place in which the home, the living unit of a living state, is made. As for the children—of course they must be kept well, and they must be sent to school, and facilities for the proper use of their leisure time must be furnished. But all this is not child welfare—it is the means to child welfare, which is the rearing of happy, useful citizens.

EDITORIAL

Twelfth Annual Meeting, American Home Economics Association. The fact that Blue Ridge, N. C., was not generally known to ticket sellers bid fair for a restful stay in the mountains. The program also seemed to have been planned with the double purpose of offering valuable conference periods and allowing time to enjoy the mountain trails and the views from the piazza of Robert E. Lee Hall.

Several other conferences ran parallel to the home economics conference, but there was no time for attending their meetings. The dining hall seating 600 was filled except for occasional meals, when groups were changing. The meals were always served exactly on time and with no delay during the meal, a great convenience. The dining room was in charge of Mary B. Davis of Judson College, while the kitchen was managed by Daisy Brooks of Greensboro Normal School. The efficient service of these two women was much appreciated. One hundred and fifty girls and boys, students of Southern Colleges, served in the dining room and looked after the sleeping rooms. The girls named their dormitory "Martha Washington Hall," and the colored help in the kitchen then called theirs "Booker Washington Hall."

The setting would not be complete without some mention of the frequent rains, and the resulting cloud effects in the mountains. Since everything was under one roof, except the sleeping quarters in some of the cottages, weather was of minor importance.

The Southern Home Economics Association had its meetings in conjunction with the mother organization, and two of the five general meetings held in the evening were under its auspices.

The President of the Southern Association, Edith M. Thomas, Florida State College for Women, and Catherine Mulligan, Converse College, Spartanburg, S. C., who also extended a greeting, were most hospitable in their greetings to the American Association.

Mary E. Sweeny, University of Kentucky, held her audience spellbound while she recounted her experiences "Canteening with the American Army in France." At Chateau Thierry and Argonne she and her sister who was with her must have proved themselves most

serviceable members of the Y. M. C. A. The American Home Economics Association thrilled with pride in its representative.

It was fortunate that Dr. Bruce R. Payne, President of George Peabody College for Teachers, preceded Miss Sweeny, for he berated home economics teachers soundly. Since criticism frankly given is always stimulating, his statements should be borne in mind. He compared teachers of physics, Latin, English and others with teachers of home economics as to scholarly attainments and spirit of research, saying that the latter compared unfavorably and were much less well prepared for teaching their subject. Unfortunately there was no time for discussion.

In this connection it is interesting to note that there were in the various sectional meetings a number of reports of research work. One which attracted wide interest was given by Mabel B. Trilling, who reported for a group at work at Chicago University on analysis of the content of household arts courses of study and text books. The material will be published by the University in the form of a monograph, and promises to be most enlightening. As a result of this piece of work Miss Trilling was appointed by the Council Chairman of a Committee on Educational Research in Home Economics. Other members of the committee were Professor Charters of the University of Illinois and Ethelwyn Miller of Iowa State College, Ames, Iowa. They will add to their number.

Reports on experimental cookery were given in the Science Section by Dr. Minna C. Denton, Experimental Kitchen, Office of Home Economics, U. S. Department of Agriculture. Although she gave glimpses into various other problems on which she is working, her special subject was "Oven Temperatures as Related to Consistency of Batters and Doughs and to Gas Consumption."

Elizabeth W. Miller, Iowa State College, reported on experiments in vegetable cookery, particularly concerning the changes of color in cooking of green vegetables.

Dr. Katharine Blunt, Chairman, reported for Dr. Agnes Fay Morgan, University of California, Sybil Woodruff, University of Chicago and George Peabody College for Teachers, and Elizabeth Sprague, University of Kansas, three papers on "Changes in Fats in Cookery."

Marion Weller, University of Minnesota, as chairman of a committee appointed at the conference in 1918 reported through Miss Vermilye the results of a questionnaire on the teaching of buying of textiles.

Her report was encouraging in that many reported that the questions had stimulated them to strengthen their courses in that respect.

Two other constructive projects were launched in the Textile Section, one an effort to have textile manufacturing concerns, jobbers, and retailers coöperate in producing a few standard materials labeled accordingly. Following such action, the Section will conduct an educational drive in the Association to teach women the advantages of buying the materials. Any reader who can do anything to further the work of the committee in bringing the project to the attention of the trade will do well to communicate with Miriam Birdseye, States Relations Service, U. S. Department of Agriculture, Washington, D. C.

The other effort is in the way of improving the interior decoration and furnishings as shown on moving picture screens, first by bringing the question to the attention of managers of moving picture concerns and suggesting that they employ decorators in staging their plays; second, by asking home economics teachers to report on the furnishings shown in various pictures they may see. Blanks for such reports will be furnished for teachers of home economics or students of house furnishing classes. Address Florence E. Winchell, 176 Elm Avenue, Mt. Vernon, New York.

Dr. C. F. Langworthy gave an account of the very extensive investigations on foot in the Office of Home Economics, U. S. Department of Agriculture, that was a revelation to most of those who heard it. It included a statement of Government bulletins under preparation.

Elizabeth McCracken and Mrs. Max West of the Children's Bureau, Washington, D. C. spoke from the standpoints of home economics in general and home demonstration in particular. Mary A. Harper, Association for Improving the Condition of the Poor, New York City, reported in detail the work that is being done in nutrition classes for children. Her skillful use of charts and graphs both with the children and parents, in stimulating conscientious efforts, was very suggestive.

Dr. Benjamin R. Andrews spoke on Wednesday evening for the Thrift Education Movement. Dr. Andrews, Mrs, Norton, and Miss Elliott represent home economics work in the Savings Division of the Treasury Department. They urged teachers of home economics to devise schemes for stimulating savings in all schools, in addition to teaching thrifty housekeeping habits.

Dr. Graham Lusk, Cornell University Medical College, spoke on "Food and Reconstruction." His paper will be much used in printed

form, for it was written as a result of his investigations as a member of the Interallied Scientific Food Commission.

Dr. F. C. Butler, Director Americanization Division, U. S. Department of the Interior, gave startling figures regarding the illiteracy of native Americans, and urged greater efforts for universal education, and a democratic education in home economics.

Edna N. White, President of the Association, in her opening address on Monday evening reviewed the work of the year on the basis of the platform laid down the previous year. This served to bring before the Conference the big aims of home economics workers and to spur everybody to greater effort.

Miss White's calm poise and her constant attention to the comfort of the group gave an atmosphere of repose which is always conducive to full appreciation of a conference program. It was a great satisfaction to the Association that Miss White was willing to accept the presidency for another year.

The interest shown in all sectional meetings prompted those in charge to arrange the schedule so as to avoid overlapping as far as possible. This meant that nearly everyone was able to attend almost all meetings, but the looked for leisure vanished.

The Institution Section held one session, given over to a report of the meeting in Madison, Wisconsin.

At one of the meetings of the Extension Section Dr. Bradford Knapp, Chief of Extension work in the South, and Florence Ward, in Charge Extension Work with Women, N. and W., spoke and were also available for discussion for several days. Among other speakers on the extension program were Mrs. Jane S. McKimmon, State Home Demonstration Agent, N. C., and Mary B. McGowan, Urban Agent, Division of Extension, Commercial Club, Nashville, Tenn. The second meeting was devoted to discussion of training courses for home demonstration agents, and phases of home demonstration projects: dairy work, animal industry, poultry work, clothing, girls' clubs, service.

The work of the Textile and Science Sections has already been referred to.

The Vocational Committee meetings were very stimulating, particularly because Anna Richardson and Louise Stanley, both of the Federal Board for Vocational Education, were always available to answer questions on Smith-Hughes and Smith-Lever problems. In the Friday evening meeting, at which Isabel Ely Lord was Chairman, both Miss

Richardson and Mrs. Anna L. Burdick spoke. Mrs. Burdick, who is Special Agent for Industrial Education of Girls and Women, Federal Board for Vocational Education, made a strong plea for technical training. Her analysis of the situations with which we are all familiar, i.e., the struggling of women forced to support themselves and others with no training for it, and her masterly use of statistics made Mrs. Burdick's address illuminating to every one.

Dr. David Snedden of Teachers College could not attend the meetings as he had planned, but Miss Lord conducted the discussion of his newly issued pamphlet on Homemaking Education. Dr. Snedden's views are stimulating, and every home economics teacher will be interested to read this pamphlet, for sale by the Bureau of Publications, Teachers College.

Jenny Snow, Supervisor of Home Economics, Chicago Public Schools, conducted a round table discussion as temporary chairman of the Committee on Reorganization of Secondary School Courses in Home Economics. Although nothing definite was formulated as a result of the meeting, the Committee had the benefit of the expressions of opinion and educational practice in all parts of the country. It was gratifying that in many respects there was very general agreement in (1) working toward food and clothing problems as nearly under home conditions as possible; (2) avoiding exploiting of children in lunch room practice; (3) breadth of view in general education rather than over-emphasis on technical skill.

The wide range of interests considered by the committee who arranged the program is apparent. In this connection it should be noted that Agnes Ellen Harris took over the task of program arrangements at a very late date, due to the illness of the original chairman. The Association was deeply grateful for the wise selection of subjects and the strong speakers.

The annual meeting of the American Home Economics Association is gaining in popularity. It is unfortunate that more cannot attend. Although the meetings prove of great value, the informal discussions of specific problems are even more helpful. Groups of three or four or a dozen spring up on the spur of the moment or as a result of unfinished discussions at meetings. Although one of the charms of the conference is that it is small enough to be personal, still those who attend are eager to see the benefits shared and urge all to make especial effort to attend next June.

FLORENCE E. WINCHELL,
The Lincoln School of Teachers College, New York City.

COMMENT AND DISCUSSION

Obdurate Educators. In the fall of 1907 the meeting of the Association of Collegiate Alumnae was held in Boston. During its session a woman, prominent in its councils, delivered an address in which she tried by ridicule to dispose of the more modern and practical branches of study. Probably her audience as a whole either agreed or received the address as a characteristic expression; one hearer, however, not only was not convinced but felt a certain obligation to break a lance with the speaker and sent the following letter:

March 3, 1908.

My dear Miss———:

For many reasons I was keenly interested in your address at the A. C. A. Meeting last November. There were certain points, however, on which I would like more information. I have waited for the printed proceedings that I might not trouble so busy a woman unless there were sufficient ground to warrant it; and perhaps you will not agree with me in thinking my inquiries justified.

You said, "It is also true that sanitary and domestic science are not among the great disciplinary race studies." That is true, of course, for the past, since they are comparatively new. But for the future, why do you consider them lacking in disciplinary value? Is it from the nature of the study, or from the state of its development?

The latter, as a reason, certainly has weight, for much of the earlier work has been elementary in character. But at the present time women—and men—of advanced scholarship are working in the development of courses whose content and method shall be scientifically worthy.

As for specialized education for sex, there is no sex in sanitation, none in the fundamentals of hygiene and food study. They are human studies, and are to be a part of the future man's education as well as of the woman's; not for the reason that the livelihood may be earned more easily, but as a necessary ground for the development of a sound body and sound mind.

We are done with the idea that the scholar must be consumptive and the religious man a recluse. But was not that only the earlier, cruder form of this fear of the so-called practical? What is there that makes theoretical science so pure, and applied science so unworthy? In our college physics we study the laws of heat and light. All our natural lives we must live in daily obedience to these laws, or suffer from bodily disability because we have broken them. Why are our minds less disciplined as we study our physics, by applying the laws to windows, stoves, and the general problems of our common life? This is not a rhetorical question. I would like to know why you say that it is so.

I do not believe that such studies should be a compulsory part of a college course, at least at present, but that they should be offered as electives. They may be allied with the work in physics, chemistry, biology, and economics; and I believe that proper courses, under proper instructors, will have as much disciplinary value as any other proper course. Is there any more ground for believing to the contrary than there was for believing that woman's education was doomed to remain academic?

I am not a teacher and have no experience as an educator, but because when I heard your address I thought you were wrong I want to be corrected if I, rather than you, should change my opinion. It seems to me that I could go through your address and show the analogy between your attitude toward the "practical" studies, and that of President E——— and others toward woman's higher education in the past.

This is all very presumptuous from a mere business woman to a college president, but I really want to know if you are following the work in these branches.

It is a good many years since I left college walls, but if I am right, much of the cultural and disciplinary in our education comes from the Greeks, whose ideal of bodily development was beyond ours in some respects. Is it not tenable that greater attention on our part to the subjects that will give physical betterment may bring in happier results than you fear?

The letter was honest in intent and the reader shall decide as to its courtesy. In spite of the enclosed stamp for reply, none ever came nor was the original letter returned by the post office.

Now in this year 1919 comes a newspaper report of a commencement address from the same source. The quotation following was taken from the *Boston Transcript*.

The women of my generation and earlier generations (I might almost say from the time of Eve until the opening of Bryn Mawr and other women's colleges) have tried this practical applied education for centuries and we know of what we speak. It was only when we too were allowed to share in the kind of idealistic education that has nurtured the spirit of man from the time he first appeared as a thinking human being upon the earth that our woman's world of petty duties and interests became transformed into a new world of the spirit, for the first time inspired by these great devotions to abstract learning and abstract causes that have made our human race what it is.

So-called practical studies, science applied to daily problems, the chemistry of cooking, or furnaces, physics as applied to reading lamps, the arithmetic of the market and the bank account lose in some curious way the inspiration

and glory of theoretical studies. The soul and spirit have gone out of them. Teachers of such applied studies become in some strange way like the business men and women we have all known. They, too, lose the radiant halo that in spite of their many human imperfections glorifies the head of a true teacher of the humanities. Both teachers and pupils become bleak, every-day kind of persons. There is now, however, an almost irresistible trend toward such bleak vocational studies and such bleak teachers.

We will not enter into the personalities of this discussion, as to the relative bleakness of character exhibited by the materialistic professor of home economics, for instance, compared with some austere spirits we have known whose lives had been given to the "humanities."

We will also pass lightly over the condensed history of education that estimates as idealistic man's first thinking; that compares the formulated courses of universities for men in the nineteenth century with the traditional home crafts of women; that denies to all women of the past entrance into the world of the spirit. College presidents are tired at Commencement time; but a tired college president should not condemn thousands so easily to poor "bleak" lives even for the passing moment of her pronouncement.

It may be that there is something more primitive and unreasoned than the excluder thinks in this antipathy for the "daily problems," the "practical;" something allied to caste and the elaborate ceremonials of early peoples. On any other basis it is hard to understand the sharp discriminations as to the relative purity of subject matter. Why worship Greek culture with its perfection reflected in art and transmuted into the classics, and neglect today the studies that tend to give us and the next generations bodies more capable of such development and such thought? Why is it so educative and refining to study the ways of faithful Penelope and neglect the knowledge that leads our women to look well to the ways of their households? Why but because of this great gulf that set art apart from practical women have homes been ugly shelters filled with horrors for the aesthetic? Why should a thinker meditate raptly on God in some of his marvellous creations, and deny him in the making of bread, or in numberless household processes revealing perfect law, or in the continued creation of life?

This assumption, unconscious or expressed, that the present time and the near experience lack inspirational content is almost an unpardonable sin. It condemns its follower to restricted paths, when the whole world might be his. It is at the root of class distinction. The educated

person must shut himself in to his pure life of theory, leaving bleak, common experiences for those not so clever, not so fortunate or not so good as he. That is what it amounts to, logically.

Someone says "Of course you are right, but why do you care?" I care because I, too, believe in the humanities and I do not like to sit by speechless when those in high places treat them so ill as to predicate their continuance in our curricula on the defamation or exclusion of applied science. Mere policy should have dictated a more generous course to these idealists. Why have they so little faith in the power of their ideals as to fear that their vitality cannot stand an honest test? Why the thought of mutual exclusion? Why not welcome the test of a *full* education? Prove all things, hold fast what is good.

I care, too, because I believe that not from any held educational thesis, but because of an ingrained and perhaps unconscious prejudice against manual work this exclusion of the practical has seemed so necessary to some of the high priests and priestesses of education. Why should a college president think applied science loses "in some curious way" the inspiration and glory of the theoretical? Why does a college professor have the intellectual hardihood to say that he hopes he shall never do a "useful" thing in his life? Is it not, in the final analysis, because practical courses are connected in their minds with so-called common work? Do we need to go back to the days of the apostles and be shown by visions that there is nothing common?

John Ruskin says:

> It is a no less fatal error to despise labor when regulated by intellect than to value it for its own sake. In these days we are always trying to separate the two. We want one man to be always thinking, another to be always working; and we call the one a gentleman and the other an operative, whereas the workman ought often to be thinking and the thinker to be working, and both should be gentlemen in the best sense. Now, it is only by labor that thought can be made healthy, and only by thought that labor can be made happy.

Because labor has not in the past been given its opportunity for thought—with all that implies—many working men of today are carried away by false or impractical theories. To think straight and true is therefore a doubly imperative responsibility on the "educated." Instead, some of these inactive "thinkers" whose thought has not been made healthy by participation in "every day" affairs, shuffle their

ideas and deal them out like a pack of cards. How dare they presume to divide knowledge and humanity into spiritual knowledge for refined people and bleak, everyday knowledge for common people? There is great loss, negatively, in this, but the chief harm to society lies in the reaction on the active class. Labor has taken its cue and there has arisen the second of Ruskin's "fatal errors," "the new snobbery which consists in saying that the manual workers form the only useful class in society."[1] We shall all be fortunate if this ends in snobbery, merely, for those whose self-expression has been restricted to *doing*, become proportionately dangerous when they are impelled to reflect in action the untried theories of others.

So, dear friends of the upper ether, come down here below among the common things, and see how good all life is. Knowledge is a body that should be fitly framed together. To hack off a limb here because it walks on the earth, or a hand there because it carries food that shall soon be transformed into the very material through which thought may exist, is crippling if not suicidal. Health as well as holiness lies in wholeness, the dictionary tells us. It seems banal to have to say that the practical and the theoretical are not sworn enemies, only two phases of the truth. According to Governor Coolidge of Massachusetts "science provides power, alone, but not direction," that being furnished by ideals gained from the classics. The concept of others may differ from his, but all reconciliation lies in recognition of the fact that abounding life includes both knowledge and wisdom in its use.

MARY BARROWS.

[1] Christabel Pankhurst.

NEWS FROM THE FIELD

The National Research Council has appointed a Committee on Food and Nutrition, constituted as follows: John R. Murlin, Graham Lusk, Lafayette B. Mendel, C. F. Langworthy, H. C. Sherman, Alonzo E. Taylor, E. V. McCollum, Isabel Bevier. Henry P. Armsby, A. F. Woods, E. B. Forbes, W. H. Jordan, Raymond A. Pearson. Of this general committee, the first eight are to constitute a Sub-committee on Human Nutrition, with J. R. Murlin, Chairman, and the last three a Sub-committee on Animal Nutrition, with H. B. Armsby, Chairman.

The Committee held an organization meeting at Cornell University Medical College, New York City, on July eleventh, and adopted the following tentative program:

The Committee regards itself substantially a coördinating rather than a research body.

Its objects are: (1) To promote scientific research upon the nutrition of men and of animals (especially animals of agricultural importance) and to bring about closer relations between the two fields of work. (2) To promote study of the economic aspects of nutrition, i.e., study of national and international as distinguished from personal nutrition. (3) Pending the possible establishment of a National Institute of Nutrition, to act as an unofficial clearing house for existing research institutions and to promote coördination of both American and foreign research. (4) To promote sane and authoritative extension and propaganda work in the interest of better nutrition.

In considering methods, it must be borne in mind that the Committee has only moral and not mandatory authority. It suggests:

(1) *a.* Preparation of a broad program of research in both human and animal nutrition, emphasizing especially gaps in present knowledge with suggestion of problems of more immediate importance. *b.* Maintenance of research fellowships. *c.* Subsidizing of especially important researches.

(2) The coöperation of statistical agencies would appear necessary.

(3) *a.* Meetings of the Committee and of nutrition investigators in general, especially for the sake of maintaining personal touch and considering programs of research. *b.* Correspondence and publications. *c.* Representation of the United States in the International Scientific Commission of Nutrition.

(4) *a.* Coöperation with existing governmental agencies and educational institutions, especially of the land grant colleges. *b.* Coöperation with the American Public Health Association.

Among the questions affecting public welfare which require immediate investigation, the Committee considered the following the most important: *a.* Practicable changes in methods of food production for the purpose of reducing the cost of living without reducing the quality of nutrition. *b.* Diet in relation to industrial efficiency. *c.* The food requirements of growing children.

It was estimated that thirteen fellows of the National Research Council could profitably be put to work at once upon these problems and various possible sources of funds were discussed.

Information has been received from Dr. Alonzo E. Taylor, who is still in Paris, that "The Inter-Allied Scientific Food Commission closed its existence at Brussels on May 25 with recommendations to the governments involved to form an Institute for the Study of Nutrition, to be connected with and a part of the League of Nations in precisely the same relation as the Red Cross will stand to the League with reference to sanitation."